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Image AF/2827

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Christian RUQUE

Appln. No. 09/628,442

Confirmation No. 3334

Filed: July 28, 2000

Docket No. Q60202

Group Art Unit 2827

Examiner: DINH, T.

For: A DEVICE FOR PROTECTING A DRAWER ELECTROMAGNETICALLY

REPLY BRIEF PURSUANT TO 37 C.F.R. § 1.193(b)

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTION

In accordance with the provisions of 37 C.F.R. § 1.193(b), Appellant respectfully submits this Reply Brief in response to the Examiner's Answer dated September 2, 2003. Entry of this Reply Brief is respectfully requested.

In the Appeal Brief, Appellant made several arguments regarding the patentability of claims 1-11 over the applied references. In the Examiner's Answer, the Examiner summarizes the Appellant's arguments, and responds thereto. Appellant submits the following Response to the Examiner's Answer.

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RESPONSE TO EXAMINER'S ANSWER

A. Status of the Claims

The Examiner indicates that the statement of the status of the claims in the Appeal Brief is incorrect.[1] In particular, the Examiner alleges that claims 1-9 and 11 are the claims on Appeal, because the Examiner has indicated that claim 10 contains allowable subject matter in Paper No. 16, *i.e.*, the final Office Action dated August 27, 2002.

However, while the Examiner did acknowledge that claim 10 contains allowable subject matter in Paper No. 16, the Examiner also rejected claim 10 under 35 U.S.C. § 112, second paragraph, in Paper No. 16. Consequently, this rejection of claim 10 under § 112, second paragraph, was one of the issues on Appeal.[2]

To the extent that the Examiner has now withdrawn the § 112, second paragraph, rejection of claim 10, as noted on page 7 of the Examiner's Answer, Appellant is willing to concur that only rejected claims 1-9 and 11 are the claims on Appeal.

B. Issues on Appeal

As noted above, the Examiner has withdrawn the § 112, second paragraph, rejection of claims 1-11.[3] Consequently, issue one, as set forth on page 4 of the Appeal Brief, has been

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[1] *See* Examiner's Answer, page 2.

[2] *See* Appeal Brief, page 4.

[3] *See* Examiner's Answer, page 7.

resolved in Appellant's favor and the Board's attention can instead be focused on the unresolved issues, *i.e.*, issues two through four, as set forth on page 5 of the Appeal Brief.

C. Grouping of the Claims

The Examiner alleges[4] that claims 1-11 (with claim 10 being acknowledged to contain allowable subject matter) stand or fall together because Appellant's Brief does not include a statement that this grouping of claims does not stand or fall together in support thereof, as required by 37 C.F.R. § 1.192(c)(7).

To the contrary, the Appeal Brief provides five groups into which the claims on Appeal are grouped.[5] Furthermore, each grouping is based on the separately patentable features of the claims grouped therein, as set forth in Section VIII of the Appeal Brief.[6] Appellant's amend the grouping of the claims from the Appeal Brief, to correct typographical errors in the page numbers referenced in Section VIII, as follows:

Group 1 includes rejected independent claim 1, as well as dependent claims 2-6 and 11, which stand or fall together with their independent base claim. Thus, all of the claims in Group 1 stand or fall together.

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[4] *See* Examiner's Answer, page 2.

[5] *See* Appeal Brief, pages 5-6.

[6] *Id.*

Group 2 includes rejected dependent claim 7, which recites separately patentable features (*see* page 16 of Section VIII).

Group 3 includes rejected dependent claim 8, which recites separately patentable features (*see* pages 16-17 of Section VIII).

Group 4 includes rejected dependent claim 9, which recites separately patentable features (*see* page 14-15 of Section VIII).

Group 5 includes rejected dependent claim 10, which recites separately patentable features (*see* Final Office Action dated August 27, 2002, page 8 -- Allowable Subject Matter). As noted above, the Examiner has withdrawn the § 112, second paragraph, rejection of claim 10.[7] Consequently, to the extent that claim 10 is no longer a rejected claim on Appeal, the group 5 claim grouping is no longer required.

D. Remarks Relating to the Examiner's Response to Appellant's Arguments

The following further remarks are provided for the Board's consideration in response to the Examiner's Answer to Appellant's Appeal Brief.

(a)

Appellant acknowledges the Examiner's withdrawal of the rejection of claims 1-11 under 35 U.S.C. § 112, second paragraph.

[7] *See* Examiner's Answer, page 7.

(a')

The Examiner alleges that Aziz discloses an electronic unit with a motherboard carrier and service carrier in a housing capable of having a function of electromagnetically protecting the electronic unit.[8]

Appellant respectfully disagrees. Because Aziz fails to disclose or suggest the structure recited in claim 1, *e.g.*, "six faces distributed around said cards . . . , said faces being electrically conductive", the carriers of Aziz do not achieve a function of electromagnetically protecting the electronic unit.

(a'')

In addition to the remarks already set forth in Appellant's Brief,[9] Appellant respectfully submits that the front wall 40 does not correspond to the "front face of said drawer", as recited in claim 1. In Aziz, front wall 40 is disposed in front of a power supply 42 mounted within the service carrier 22. *See* col. 5, lines 25-27 of Aziz. The front wall 40 is located on an apertured front 34 of the service carrier 22. *See* col. 5, lines 19-22. However, the front wall is located adjacent to a cover 36, which is provided for the horizontal and forward removal of media disks (not shown) that are located beneath a boot drive 38 within the carrier 22. *See* Fig. 3 of Aziz. Thus, front wall 40 does not cover the area formed by side walls 14, top wall 18 and base 16 (*i.e.*, bottom wall) of Aziz. Consequently, front wall 40 cannot represent one of the recited six

[8] *Id.*

[9] *See* Appeal Brief, pages 8-9.

faces because it does not form a volume, along with the five other faces, distributed around the electronics cards located in a drawer, wherein the volume serves to electromagnetically protect the cards of the drawer positioned within the volume.

(b)

The Examiner alleges that Fig. 3 of Aziz discloses a front wall 40 forming as a front face/cover of the drawer (20; 24) and made by metal material (*see* cross-hatching of Figs. 1-10), wherein the metal has properties of conductivity.[10]

Appellant respectfully disagrees. Aziz describes a front wall 40 is disposed in front of a power supply 42 mounted within the service carrier 22. *See* col. 5, lines 25-27 of Aziz. The front wall 40 is provided with a plurality of air inlet apertures 46 (only some of which are shown in Fig. 3), the apertures being distributed over the front wall. *See* col. 5, lines 29-32 of Aziz.

Contrary to the Examiner's allegation, none of Figs. 1-10 of Aziz shows any cross-hatching with respect to the front wall 40.

(c)

There is no issue (c) in the Examiner's Answer.

(d)

As noted above, Aziz does not disclose or suggest "six faces distributed around said cards . . . , said faces being electrically conductive", as recited in claim 1.

Contrary to the Examiner's allegation, none of Figs. 3, 4 and 7 shows any cross-hatching with respect to the front wall 40.

Furthermore, the Examiner's allegation that "the faces being formed electrically conductive because the metal has conductivity (*i.e.*, for ground or shield purposes)"[11] is not supported by the disclosure of Aziz, thus suggesting impermissible hindsight on the part of the Examiner.

Indeed, the electronic unit of Aziz is directed to improving known problems with conventional electronic units (*see,* col. 1, lines 6-48 of Aziz), but does not relate to "a device for electromagnetically protecting a drawer equipped with electronics cards", as recited in claim 1.

(e)

While acknowledging that Aziz fails to teach or suggest "resilient electrical connection means for providing electrical connection between said front face of said drawer and said drawer-receiving structure", as recited in claim 2, the Examiner alleges that Anderson makes up for this acknowledged deficiency of Aziz.[12]

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[10] *See* Examiner's Answer, page 8.

[11] *Id.*

[12] *See* Examiner's Answer, page 4.

As noted in the Appeal Brief,[13] the damping devices 405; 600 have a layered structure. *See, e.g.,* Fig. 6 of Anderson. Anderson describes the damping devices as generally consisting of a top element 601, a bottom element 603 and a viscoelastic element 605. Anderson indicates that the top element 601 and bottom element 603 may be formed from a number of different materials, such as metals, plastics and carbon fiber materials. *See, e.g.,* col. 4, lines 31-34 of Anderson. Indeed, because the damping devices 405; 600 of Anderson are not related to establishing electrical conductivity between the faces of a device for electromagnetically protecting a drawer equipped with electronics cards, as in Appellant's invention, Anderson expressly discloses that the composition of the damping devices 405; 600 can be made from non-conductive materials, *e.g.*, plastics. *Id.*

Furthermore, even if the top element 601 and the bottom element 603 of the damping devices 405; 600 of Anderson are formed from an electrically conductive material, *e.g.*, a metal, Anderson fails to teach or suggest that the viscoelastic element 605, which is located between the top element 601 and the bottom element 603, is formed from an electrically conductive material. To the contrary, Anderson describe the viscoelastic element 605 is formed from a viscoelastic material. *See* col. 4, lines 35-37 of Anderson. Because Anderson fails to teach or suggest that the viscoelastic element 605, which forms a layer between the top element 601 and the bottom element 603 of the damping devices 405; 600, is electrically conductive, Anderson does not teach or suggest that the damping devices 405; 600 are themselves electrically conductive.

[13] *See* Appeal Brief, pages 9-12.

Indeed, the viscoelastic material forming the viscoelastic element 605 may serve as an insulator preventing the top element 601 from being electrically connected to the bottom element 603, even when the top element 601 and the bottom element 603 are themselves electrically conductive.

(f)

Appellant respectfully disagrees with the Examiner's allegation[14] that Figs. 4 and 5 of Anderson discloses that the "resilient electrical connection means are formed by electrically-conductive springs disposed on edges of said opening provided in the front face of the structure, and/or on said drawer", as recited in Appellant's claim 3.

Anderson describes that a damping device may include two stainless steel springs. *See* col. 6, lines 37-39 of Anderson. However, Anderson discloses that these springs are laminated together with a viscoelastic material, which as discussed above, certainly removes any ability to assume an electrically-conductive capability of the thus laminated springs. *Id.*

(g)

Appellant respectfully disagrees with the Examiner's allegation[15] that Anderson discloses the "[drawer-receiving] structure [that] is suitable for receiving a plurality of drawers, wherein drawer-receiving recesses for two adjacent drawers are separated by an intermediate electrically-

[14] *See* Examiner's Answer, page 9.

[15] *See* Examiner's Answer, pages 9-10.

conductive plate suitable for creating electromagnetic isolation between said two recesses", as recited in claim 9.

The Examine alleges[16] that the limitation of "suitable for creating electromagnetic isolation between said two recesses" is function language, and not a positive claim. Consequently, it appears that the Examiner fails to afford this claim language any patentable weight.

Appellant respectfully disagrees with the Examiner's characterization of this claim language as functional and instead submits that the claim language is structural language, *i.e.*, language limiting the structure of the claimed device, and thus must be afforded patentable weight.

The language "suitable for creating electromagnetic isolation between said two recesses" places structural (as opposed to functional) limitations on the intermediate electrically-conductive plate recited in claim 9. For example, if an intermediate plate has openings, the openings cannot be too large or electromagnetic waves will pass therethrough such that electromagnetic isolation is not achieved. *See, e.g.,* Appellant's page 7, lines 12-20.

The bay-forming walls of Anderson, which the Examiner alleges[17] correspond to the recited intermediate plate, clearly have openings. *See* Fig. 1 of Anderson. However, Anderson

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[16] *Id.*

[17] *Id.*

does not address the relationship, if any, between these openings and the electromagnetic waves from which isolation is required. Consequently, Anderson fails to teach or suggest that these bay-forming walls are "suitable for creating electromagnetic isolation between said two recesses", as recited in claim 9.

(h)

With respect to the Examiner's allegation[18] that Porter shows in Figs. 2 and 5 a structure comprising a backplane 24 having a plurality of openings 33, Appellant respectfully submits that the apertures 33, which permit ventilation, are formed in top and bottom panels 27, 28 and not in the backplane 24. *See* col. 10, lines 53-62; and Fig. 2 of Porter. Furthermore, Fig. 5 of Porter illustrates a front panel 19, but does not illustrate the aforementioned backplane 24. Therefore, as noted in Appellant's Brief on Appeal, [19] no openings are illustrated on the backplane 24 for passing cables through.

(i)

Appellant respectfully submits that the Appeal Brief[20] adequately refutes the Examiner's allegations, as set forth on page 10 of the Examiner's Answer.

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[18] *See* Examiner's Answer, page 10.

[19] *See* Appeal Brief, pages 15-16.

[20] *See* Appeal Brief, page 16.

(i)

The Examiner acknowledges[21] that Aziz and Porter (either alone or in combination) fail to teach or suggest that "a maximum linear dimension of said openings is considerably smaller than a minimum wavelength of electromagnetic waves from which said drawer is to be isolated", as recited in claim 8. However, the Examiner alleges[22] that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a size of the openings and compare with wavelength of the electromagnetic waves in order to provide an electromagnetic isolation structure which reduce heat from electronic components inside the structure". In support of his allegation, the Examiner cites *In re Boesch.*[23]

In re Boesch stands for the principle that discovering an optimum value of a result-effective variable ordinarily involves only routine skill in the art. However, the prior art must recognize the parameter to be optimized as a result-effective variable. *See In re Antonie*, 559 F.2d 618; 195 U.S.P.Q. 6 (C.C.P.A. 1977); *see also* MPEP § 2144.05 (II) (B).

The prior art cited by the Examiner in the case of *In re Boesch,*[24] recognized the functional importance of the variables optimized by the applicant therein. Here, however, the

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[21] *See* Examiner's Answer, pages 10-11.

[22] *Id.*

[23] *See* 617 F.2d 272; 205 U.S.P.Q. 215 (C.C.P.A. 1980).

[24] *Id.*

prior art of Aziz and Porter does not recognize that a linear dimension of openings is result-effective to achieve electromagnetic isolation, as Appellant has.

CONCLUSION

For the above reasons as well as the reasons set forth in Appellant's Brief on Appeal, Appellant respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,

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